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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER
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DORVIL, RICHEMOND

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ANDREAS JOHANNES GERRITS

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Appeal 2007-3246  
Application 10/047,032  
Technology Center 2600

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Decided: February 12, 2008

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*Before:* JOSEPH F. RUGGIERO, ROBERT E. NAPPI, and  
KEVIN F. TURNER, *Administrative Patent Judges.*

TURNER, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from final rejections of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

Appellant discloses systems and methods for transmitting and receiving signals via transmission channels. The signals are split before being transmitted into first and second frequency band signals and recombined at a receiver, where missing frames of the signals may be reconstructed based on the other frequency band signal. (Specification 6:15-30 and 8:3-15).

The independent claim 1, which is deemed to be representative, reads as follows:

1. A transmission system (10) comprising a transmitter (12) for transmitting an input signal to a receiver (14) via a transmission channel (16), the transmitter (12) comprising a splitter (20) for splitting up a single input signal on a single input line into at least first and second frequency band signals, the transmitter (12) further comprising a first encoder (22) for encoding the first frequency band signal into a first encoded frequency band signal and a second encoder (24) for encoding the second frequency band signal into a second encoded frequency band signal, the transmitter (12) being arranged for transmitting the first and second encoded frequency band signals via the transmission channel (16) to the receiver (14), the receiver (14) comprising a first decoder (26) for decoding the first encoded frequency band signal into a first decoded frequency band signal and a second decoder (28) for decoding the second encoded frequency band signal into a second decoded frequency band signal, the receiver (14) further comprising a combiner (30) for combining the first and second decoded frequency band signals into an output signal, the receiver (14) further comprising reconstruction means (48) for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means (48) are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Zinser	US 5,384,793	Jan. 24, 1995
Chai	US 6,137,915	Oct. 24, 2000

The Examiner rejected claims 1, 2, 4-6, 8-10, 12-14, 16-18 and 20 under 35 U.S.C. § 102(e) as anticipated by Chai. The Examiner also

rejected claims 3, 7, 11, 15 and 19 under 35 U.S.C. § 103(a) as unpatentable over Chai and Zinser.

Appellant contends that the Examiner erred in indicating that the claimed subject matter would have been anticipated or obvious. More specifically, Appellant has argued that elements of the independent claims are not taught or suggested by Chai and that Zinser fails to cure the deficiencies of the anticipation rejection. (Br. 10-41). The Examiner finds that Chai teaches all of the elements of the independent claims either explicitly or inherently. (Answer 8-11).

We reverse.

#### ISSUE

Has Appellant shown that the Examiner erred in finding claims 1-20 anticipated or rendered obvious in view of the cited prior art references?

#### FINDINGS OF FACT

1. The transmission system includes a transmitter for transmitting an input signal to a receiver via a transmission channel. The transmitter includes a splitter for splitting up a single input signal on a single input line into at least first and second frequency band signals, where each frequency band signal is encoded by a respective encoder. The receiver has first and second decoders for decoding the first and second encoded frequency band signals and a combiner for combining the decoded frequency band signals into an output signal. The receiver also has reconstruction means for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, from the first decoded

frequency band signal. (Specification 5:25-27; 5:32 – 6:6; and 8:3-15; Fig. 2, elements 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 and 48).

2. With respect to the independent claims, claims 1, 5 and 17 recite “a first decoder,” “a second decoder” and “a combiner,” and claims 9 and 13 recite “combining the first and second decoded frequency band signals into an output signal.”

3. Chai discloses a system that includes an image/video encoder for receiving and encoding video data into an elementary video bitstream, where the video encoder is capable of generating hierarchical subband decomposed coefficients. The system may also include an audio encoder for receiving and encoding audio data. The bitstreams are packetized and then multiplexed by the transport stream multiplexer to produce a transport stream. The transport stream is transmitted over a transmission channel, where thereafter the transport stream is demultiplexed and decoded by a transport stream demultiplexor to serve as inputs to video decoder 270 and audio decoder 290, whose outputs are decoded video signals 275 and audio signals 295, respectively. (Abstract; col. 3, ll. 29-38 and 54-64; col. 4, ll. 15-22 and 31-42; Fig. 2, elements 210, 220<sub>1</sub>, 220<sub>n</sub>, 225, 240, 250, 260, 270, 275, 290 and 295)

4. While the splitting of the audio and video signals may occur before the signals are input into the system of Chai, Chai does not explicitly disclose such a splitting. Chai does not disclose that signals output from the image/video decoder and the audio decoder are combined.

5. Zinser is directed to a method of correcting random errors, including detecting the failure of a correction algorithm and regenerating an

estimated value to replace the corrupted value. The estimated value may be a weighted-sum average of the values corresponding to the energy of the previous frame and the adjacent energies in the current frame. (Abstract, col. 3, ll. 8-16)

### PRINCIPLES OF LAW

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984). In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992).

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellants to overcome the prima facie case with argument and/or evidence. *In re Mayne*, 104 F.3d 1339, 1342 (Fed. Cir. 1997). “Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

art to which said subject matter pertains.”” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007).

The claims on appeal should not be confined to specific embodiments described in the Specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*). During *ex parte* prosecution, claims must be interpreted as broadly as their terms reasonably allow since applicants have the power during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

#### ANALYSIS

Appellant argues that Chai fails to disclose a splitting of the input signal, where apparently Chai receives the audio and video signals separately. We agree that Chai fails to teach such a splitting. (Finding of Fact 4). Appellant also argues that Chai fails to disclose a combiner for combining the first and second decoded frequency band signals. As discussed above, (Finding of Fact 3), Chai describes separate image/video and audio decoders and does not disclose any combination of the signals output from those decoders. (Finding of Fact 4). As such, all of the elements of the independent claims have not been taught by Chai and we find the anticipation rejection of the independent claims to be in error.

The Examiner argues that “it is well-known in the art that the operation of subband encoding performs a necessary operation of splitting a signal into frequency bands.” (Answer 9). However, given that the rejection of the independent claims was made under § 102, such speculation is inapt. The Examiner also finds that separate decoding is implied by Chai and the combination of those decoded signals “would need to be performed.”

(Answer 10). However, the outputs are audio and video signals that could just as easily remain separate, and Chai does not disclose any combination of the signals. (Finding of Fact 4). As such, we do not find the Examiner's arguments to be compelling and find that the anticipation rejection to be in error.

We also note that the Examiner has cited other art of record, (Answer 8), as teaching "early limitations," i.e. limitations in the claims not related to the reconstruction of the second decoded frequency band signal. However, no such rejections, applying this other art, are before us, or the Appellant, and we cannot speculate as to how the Examiner would formulate such a rejection.

With respect to the obviousness rejections of claims 3, 7, 11, 15 and 19, those rejections rely on the teachings of Chai to teach or suggest all of the elements of the independent claims, upon which those claims depend. We agree with Appellant that Zinser fails to teach or suggest elements of the independent claims not taught by Chai. Similarly, we find that the rejection of claims 3, 7, 11, 15 and 19 is also in error and should be reversed.

#### CONCLUSION OF LAW

We conclude that Appellants have shown that the Examiner erred in rejecting claims 1-20 under 35 U.S.C. §§ 102(e) & 103(a).

Appeal 2007-3246  
Application 10/047,032

DECISION

The decision of the Examiner is reversed.

REVERSED

tdl/gw

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